

# Acoustilay

acoustic flooring underlay system

**ACOUSTILAY**



The Ultimate Solution

**SRS**

## Benefits

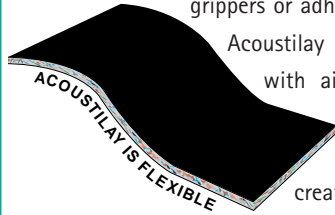
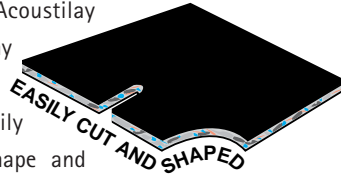
- Improves airborne sound insulation
- Reduces impact noise
- Simply laid under a carpet
- Minimises increase in floor level
- Easily cut and shaped
- Easily and quickly installed
- Butts tight up to perimeters
- Can allow access to existing floor

## Introduction

Acoustilay is a unique acoustic flooring underlay. It is designed to be installed as easily and quickly as a conventional carpet underlay but with the additional benefit of acoustic insulation. Acoustilay is ideal for use in domestic applications where privacy and comfort are important. Acoustilay provides the easiest and most convenient method of improving both the airborne (TV, music, speech) and impact sound insulation of an existing floor.



Acoustilay combines excellent sound insulation with all the qualities expected of a good underlay, hard wearing good dynamic loading and a luxury feel. Simply laid onto an existing timber or concrete floor and easily cut with a standard trimming knife, Acoustilay offers the economy of quick installation. It is easily formed to any shape and being between only 10 and 15mm thick it minimises the increase in floor level. Carpet is laid directly on top and fixed using either carpet grippers or adhesive. Three grades of



Acoustilay are available to deal with airborne and impact noise. Airborne noise problems are usually created by speech, music, television etc. whereas impact noise is generated by footsteps, moving furniture and the like. Acoustilay 8 and 15 are used in instances where both impact and airborne noise is a concern, and Acoustilay 3 for impact noise problems only.

### Acoustilay 15



Acoustilay 15 is for use where both airborne and impact noise insulation is required. It is constructed with a resilient foam core bonded between two flexible attenuating surfaces and has an overall thickness of 15mm.

### Acoustilay 8



Acoustilay 8 has the same resilient base bonded to one attenuating layer, giving a thickness of only 12mm. Impact noise performance is similar to that for Acoustilay 15 but airborne noise insulation will depend to a greater extent on the existing structure.

### Acoustilay 3



Acoustilay 3 is for use where only impact noise insulation is required, it has the same resilient base but the attenuating layer is reduced to a thinner flexible membrane. The overall thickness is only 10mm. Acoustilay 3 offers very high impact noise insulation and is suitable for both timber and concrete floors.

## Installation

Acoustilay is supplied in 1200 x 1200mm pieces which may either be loose laid or bonded to the floor. It can be fitted tight up to the perimeters without the need for an isolating strip. Acoustilay will not transmit vibrations into the walls. Sheets should be laid in a brick pattern, with staggered joints, and butted tight together. Carpet grippers are ideal for use with Acoustilay. Perimeter Strips are used for installing these.

### Gripper Method

An Acoustilay Perimeter Strip is nailed to the floor, around all perimeters. The foam edge must be compressed tight to the skirting. The gripper is then nailed onto this. The Acoustilay is installed butted tight up to the Perimeter Strip. For Acoustilay 3 the gripper is nailed directly to the floor and Acoustilay 3 butted up to it.

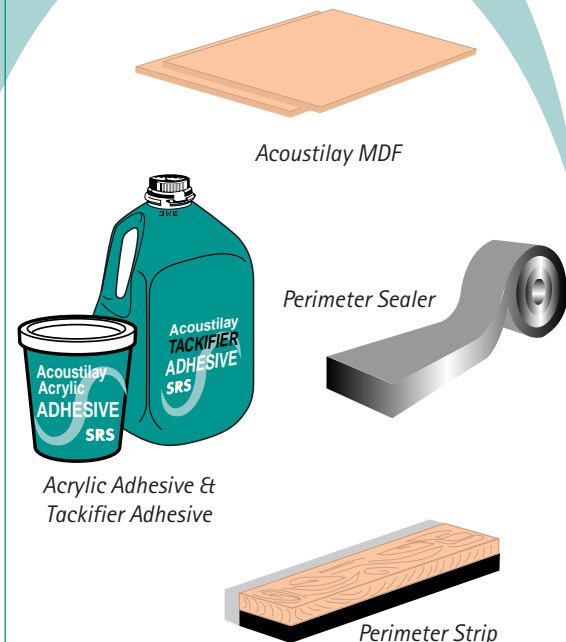
### Bonding

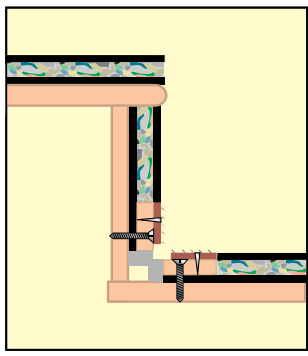
Carpet, MDF and plywood can be bonded to Acoustilay using Acoustilay Adhesive. If using another adhesive it must be suitable to use with pvc and not affected by plasticiser migration, otherwise shrinkage of the Acoustilay may occur. When bonding carpet to Acoustilay, the Acoustilay must be bonded to the sub floor. All loose floorboards should be secured prior to installation of Acoustilay.

### Cupboards and Wardrobes

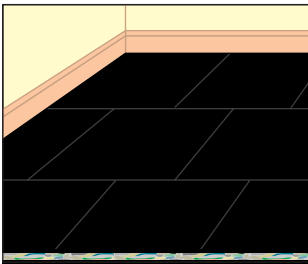
The floors of built in cupboards or wardrobes should also be treated to prevent flanking of airborne sound.

### Accessories

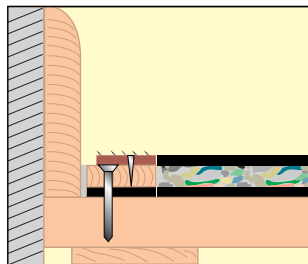




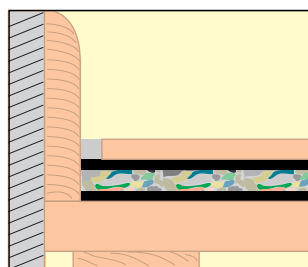
Acoustilay installed on stairs with perimeter strip.



Acoustilay laid with staggered joints.

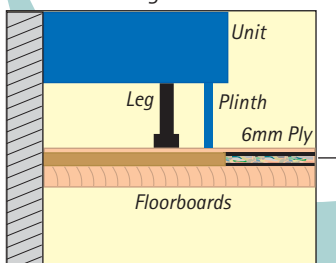


The Perimeter Strip nailed to the floor, with the foam edge seal compressed to the skirting and gripper nailed on top.



Plywood, MDF or timber laid onto Acoustilay with Perimeter Sealer or flexible mastic to the edge.

Acoustilay detail to be used beneath kitchen units or bathroom fittings.



15mm Ply or 12mm Ply or 10mm Ply  
15mm Acoustilay  
12mm Acoustilay  
10mm Acoustilay

## Stairs

### TIMBER.

For installing on stairs, Acoustilay is cut to size as specified by the installer. Pieces are simply cut to length from the large tile. For airborne and impact sound insulation, Acoustilay 8 or 15 can be used, or Acoustilay 3 for impact sound insulation only. When used for impact sound insulation only, a piece is cut and placed on the tread, level with the edge. It is secured by gluing or tacking along the side and back edges. When airborne insulation is required, a piece is also fixed to the riser with adhesive, tacks or staples. For Acoustilay 3, a piece is cut longer than the tread to form over the nose and down the riser as with a conventional underlay. For Acoustilay 8 & 15, when used with a carpet gripper, a Perimeter Strip is first nailed to the tread/riser. For Acoustilay 3 the gripper is nailed direct to the timber.

### CONCRETE

For concrete stairs, where mainly impact noise insulation is required, Acoustilay 3 or 8 can be used. A piece is cut and bonded to the tread. The carpet is then bonded to this, or fixed by gripper as described above.

## Vinyl, Wood/Laminate, Offices

Acoustilay MDF should be bonded to the Acoustilay in a number of situations. Such a layer will protect the joints of laminate or solid wood flooring from flexibility, eliminate the risk of point loading on Vinyl floor coverings and avoid carpet rucking in office environments, where wheeled chairs and furniture are used. Some wood floor manufacturers may allow their product to be laid directly upon Acoustilay.

## Installation of a Timber Interlayer Board.

Timber sheet materials can be laid onto Acoustilay. This will give a small increase in airborne noise insulation, but will reduce the insulation against impact noise. The Acoustilay should be first bonded to the floor using acrylic adhesive and the boards bonded to the top of the Acoustilay. The boards' edge detail should be a minimum of 50mm away from any Acoustilay joint and an isolation gap left between the wall and the boards to avoid transmission into the structure. The isolation gap can be filled with Perimeter Sealer or another resilient material. Boards should also be glued or fixed together, ensuring no fixings pierce the Acoustilay. In areas where the floor covering is returned up the wall a timber fillet is placed around the perimeter, the same thickness as the Acoustilay. This will give a solid edge.

## Fixtures and Fittings

When using Acoustilay you should never fix directly through the product into the floor below due to the risk of sound bridging. When items need to be fixed

directly to the floor they should be mounted and fixed onto an MDF board the same height as the Acoustilay used. The Acoustilay is then butted up to the MDF board.

## Accessories

**Perimeter Strips** (For use with carpet gripper). These are installed around the perimeter and nailed to the floor. The carpet gripper is nailed onto the Perimeter Strip bringing the gripper level with the surface of the Acoustilay.

### Release Tackifier Adhesive

A permanently tacky, water based acrylic adhesive. Suitable for bonding carpet tiles and Acoustilay to sub floor. May also be used at low coating weight as a release system to allow easy removal of floor covering.

### Acrylic Adhesive

High performance acrylic adhesive providing high tack, good grab and permanent bond. Suitable for bonding carpet and timber to Acoustilay.

### Foam Perimeter Sealer

For sealing the gap between thicker timber surface layers and the skirting. It will fill gaps up to 10mm wide. It is 3mm thick expanding to 15mm with a self adhesive edge. This is fixed to the timber or the skirting and expands over 24 hours to fill the gap.

### Perimeter Strip

1200mm long x 25mm wide  
Acoustilay 8 Strip is 6mm thick,  
Acoustilay 15 Strip is 9mm thick.

### Perimeter Sealer

Rolls 8m x 15mm wide x 3/15mm thick

**Adhesive:** Release Tackifier 10 ltr. bottle coverage up to 50m<sup>2</sup> per bottle depending on substrate.

**Acrylic Adhesive:** 5 ltr. tubs coverage up to 20m<sup>2</sup> per tub depending on substrate.

**Acoustilay MDF:** 1200 x 1200 x 6mm. For use as an interlayer board.

**Cutting:** Use a sharp long bladed trimming knife.

Score the surface then run through with knife several times to avoid tearing. When shaping use large scissors or tin snips.

**Storage:** Must be laid flat and kept dry.

## Dimensions

Size: 1200 x 1200mm

Thickness: Acoustilay 15 15 mm  
Acoustilay 8 12 mm  
Acoustilay 3 10 mm

Weight: Acoustilay 15 15 kg/m<sup>2</sup>  
Acoustilay 8 8 kg/m<sup>2</sup>  
Acoustilay 3 3 kg/m<sup>2</sup>

# Acoustic performance

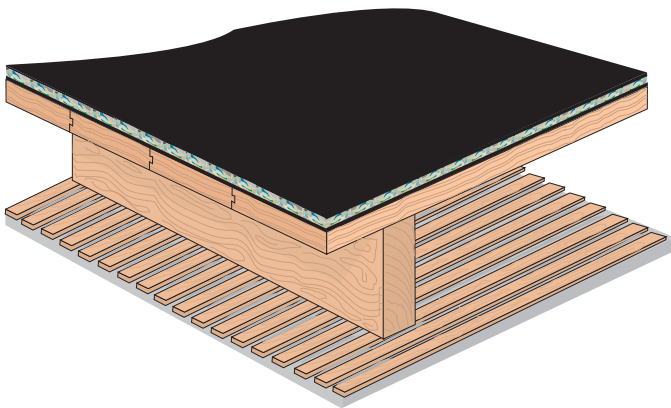
## Acoustilay 15 and 8

AIRBORNE TEST ON A TIMBER FLOOR

The Building Regulations require a figure for  $D_{nTW} + C_{tr}$  of 43dB or higher for airborne noise between dwellings within a converted property. The higher the figure the better the insulation.

### AIRBORNE SOUND INSULATION OF TIMBER FLOORS

	$D_{nTW}$	$D_{nTW} + C_{tr}$
 ACOUSTILAY 15	55dB	48dB
 ACOUSTILAY 8	50dB	43dB



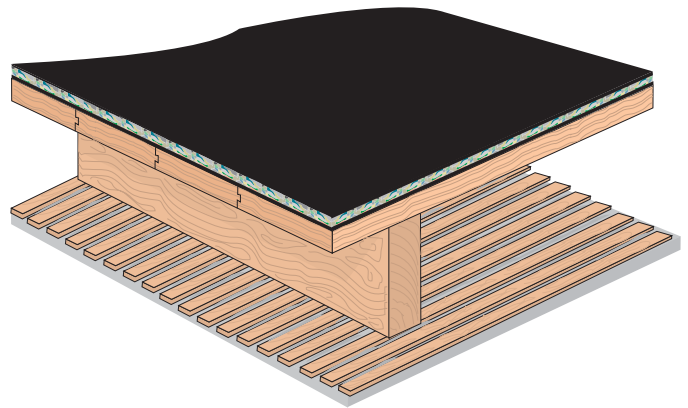
## Acoustilay 15, 8 and 3

IMPACT TEST ON A TIMBER FLOOR

The Building Regulations require a figure for  $L_{nTW}$  of 64dB or lower for impact noise between dwellings within a converted property. The lower the figure the better the insulation against impact noise.

### IMPACT SOUND INSULATION OF TIMBER FLOORS

	$L_{nTW}$
 ACOUSTILAY 15	37dB
 ACOUSTILAY 8	39dB
 ACOUSTILAY 3	39dB



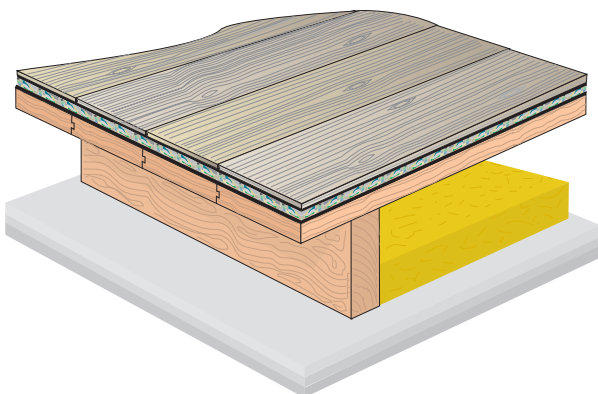
## Acoustilay 15

IMPACT TEST ON A TIMBER FLOOR, WITH 7mm LAMINATED TIMBER FLOORING LAID ONTO ACOUSTILAY.

The Building Regulations require a figure for  $L_{nTW}$  of 64dB or lower for impact noise between dwellings within a converted property. The lower the figure the better the insulation against impact noise.

### IMPACT SOUND INSULATION OF TIMBER FLOORS WITH 7mm LAMINATED FINISHED TIMBER FLOOR LAID ONTO ACOUSTILAY

	$L_{nTW}$
 ACOUSTILAY 15	63dB



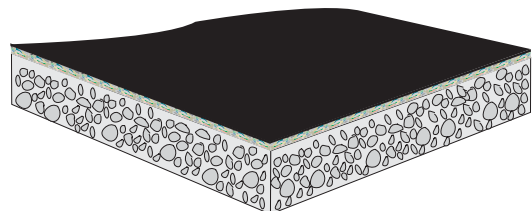
## Acoustilay 15 and 3

IMPACT TEST ON A CONCRETE FLOOR

$\Delta L_w$  is a measurement of how much the impact noise is improved, compared to a standard bare concrete floor. The higher the figure the better the improvement. Building Regulations guidance is for  $\Delta L_w$  of 17dB or higher for soft floor coverings on concrete.

### IMPACT SOUND IMPROVEMENT INDEX ON CONCRETE FLOORS

	$\Delta L_w$
 ACOUSTILAY 15	42dB
 ACOUSTILAY 3	42dB



Site conditions may vary. SRS cannot accept responsibility for the performance of any installed system of which Acoustilay is only a part. For all technical details please contact SRS.



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